REMARKS

Applicant respectfully requests reconsideration and allowance of the above-identified application. Claims 1-3, 5-9, 22-30, 37-49, and 51-62 are pending, of which claim 1 is an independent method claim, claim 22 is an independent device claim, and claims 48 and 56 are independent system claims. As indicated above, claims 22 and 48 have been amended.[1]

The Office Action rejected all pending claims under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,014,129 to Umeda et al. ("*Umeda*") in view of U.S. Patent No. 5,280,275 to Kaplan ("*Kaplan*").[2] Applicant respectfully traverses this ground of rejection.

Applicant's invention, as claimed for example in independent method claim 1, relates to positioning a cursor on a display screen using a remote control device. The method includes: emitting a signal from a first location to a remote control device at a second location, wherein the signal has an incident direction at the second location; receiving from the remote control device, data corresponding to an angular displacement between the incident direction of the emitted signal and at least one selected axis of the remote control device; using one or more mapping functions or rules to map the received data corresponding to angular displacement of the remote control device into movement of the cursor, wherein said mapping is dynamically modified based on (i) a particular task a user is performing, or (ii) a particular region of the display screen to which user input is directed; and positioning the cursor on the display screen in response to the mapped data.

Applicant's invention, as claimed for example in independent device claim 22, relates to a moveable remote control device for use in a display system that includes a display screen and a processor electronically connected to the display screen. The remote control device includes: receiving means for receiving an electromagnetic signal emitted from a remote location; orientation means for establishing an initial angular orientation of the remote control device, data corresponding to the initial angular orientation being transmitted from the remote control device to the processor; first means for measuring a first component of an angular displacement of the remote control device about a first axis and relative to the initial angular orientation; second

---

[1]Support for the amendments to the claims can be found throughout the Specification, and particularly at page 20, ll. 3-7, and page 20, ll. 20 through page 21, ll. 1-5.

[2]Although the prior art status of the cited art is not being challenged at this time, Applicants reserve the right to do so in the future. Accordingly, any arguments and amendments made herein should not be construed as acquiescing to any prior art status or asserted teachings of the cited art.

means for measuring a second component of the angular displacement of the remote control device about a second axis and with respect to the initial angular orientation, the second axis being non-parallel with the first axis; mapping means for translating movement data for the remote control device corresponding to the first component and the second component of the angular displacement into at least cursor movement data based on either (i) a particular task a user is performing, or (ii) a particular region of the display screen to which user input is directed; and transmitting means for sending the cursor positioning data to the processor.

Applicants' invention, as claimed for example in independent system claim 48, relates to a computer input system for generating a selected user input function on a display screen based on user interaction with a remote control device. The computer input system includes: emitter means for emitting a signal from a first location to a remote control device at a second location, wherein the signal has an incident direction at the second location; receiver means for receiving from the remote control device, data corresponding to an angular displacement between the incident direction of the emitted signal and at least one selected axis of the remote control device; mapping means for translating the received data corresponding to angular displacement into cursor movement data based on either (i) a particular task a user is performing, or (ii) a particular region of the display screen to which user input is directed; and processor means for generating the selected user input function on the display screen in response to the mapped data.

Similarly, Applicant's invention, as claimed for example in independent system claim 56, also relates to a computer input system for generating a selected user input function on a display screen based on user interaction with a remote control device. The computer input system includes: an emitter that emits a signal from a first location to a remote control device at a second location, wherein the signal has an incident direction at the second location; a receiver that detects data transmitted by the remote control device, wherein the received data corresponds to an angular displacement between the incident direction of the signal and at least one selected axis of the remote control device; a mapping module that comprises one or more mapping functions or rules dynamically selected and applied to the received angular displacement data when translating the received angular displacement data into cursor positioning data based on (i) a particular task a user is performing, or (ii) a particular region of the display screen to which user input is directed; and a processor that generates the selected user input function on the display screen in response to the mapped data.

Applicant respectfully submits that the combination of *Umeda* and *Kaplan* does not render independent claims 1, 22, 48, and 56 unpatentable for at least the reason that the combination either taken individual or as a whole do not disclose or suggest each and every element of these claims. For example, the combination of *Umeda* and *Kaplan* does not disclose or suggest a method that uses mapping functions or rules to map received data corresponding to angular displacement of a remote control device into movement of a cursor, wherein the mapping is dynamically modified based on (i) a particular task a user is performing, or (ii) a particular region of the display screen to which user input is directed, as recited, *inter alia*, in claim 1.

Umeda discloses a remote control that detects the inclination of a reference light source and a light receiving section to command a cursor on a screen. Col. 2, ll. 47-55. A detection section includes an iris portion to make the reference light a spot light and detect movement of the spot light toward an x-axis direction and a y-axis direction, where the optical axis is defined as the z-axis. Col. 3, ll. 1-18. *Umeda*, however, does not disclose or suggest a method that uses mapping functions or rules to map received data corresponding to angular displacement of a remote control device into movement of a cursor, wherein the mapping is dynamically modified based on (i) a particular task a user is performing, or (ii) a particular region of the display screen to which user input is directed.

Nevertheless, the Office Action alleges that although "*Umeda* does not explicitly teach of using one or more mapping functions or rules to map the received data wherein said mapping is dynamically modified based on (i) a particular task a user is performing, or (ii) a particular region of the display screen to which user input is directed, [] it is *implied* based on what *Umeda* does teach." (Emphasis added). In support of this allegation, the Office Action states that *Umeda* "teaches of a computer display screen cursor control from a remote input device that functions like the *well known* mouse input device [and]...[a]s known in the art[,] mouse devices are used to interface graphically with computer display screen[s] to perform functions assigned to menu displays or smart buttons, which are associated with specific regions of a display, and map to specific tasks and functions." (Emphasis added). Within the same paragraph, the Office Action then cites *Kaplan* as allegedly "teach[ing] [] using one or more mapping functions or rules to map the received data in accordance with either (i) a particular task a user is performing..., or (ii) a particular of the display screen to which user input is directed...."

Initially, Applicant respectfully notes that it is difficult to tell whether the Office Action is rejecting claim 1 based on: (1) inherency for what is *implied* by *Umeda*; (2) "official notice" taken for what is *well known* in the art; and/or (3) an obviousness type rejection for the teachings of *Umeda* in view of *Kaplan*. Accordingly, Applicant will respond to each potential allegation as follows.

First, with regard to what is allegedly implied by *Umeda*, Applicant respectfully notes that M.P.E.P § 2112 discusses the requirements of a rejection based on inherency. This section quotes *Ex Parte Levy*, 17 U.S.P.Q.2d 1461, 1464 (Bd. Pat. App. & Inter. 1990) as stating that "[i]n relaying upon the theory of inherency, the examiner must provide a basis in fact and/or technical reasoning to reasonably support the determination that the allegedly inherent characteristic necessarily flows from the teachings of the applied prior art." (Emphasis in original). M.P.E.P § 2112 also states that "[t]he fact that a certain result or characteristic may occur or be present in the prior art is not sufficient to establish the inherency of that result or characteristic." (Emphasis in original).

Applicants respectfully note, however, that the Office Action has not provided a basis in fact, and/or technical reasoning, which would reasonably support the conclusion that a method that uses mapping functions or rules to map received data corresponding to angular displacement of a remote control device into movement of a cursor, wherein the mapping is dynamically modified based on (i) a particular task a user is performing, or (ii) a particular region of the display screen to which user input is directed necessary flows from *Umeda*. Instead, in response to Applicant's previous arguments, the Office Action cites col. 11, ll. 28-67, as allegedly implying such elements. Although this cited section indicates that the actual inclination quantities for the control device can be changed into a ratio of movement quantity of the cursor, *Umeda* does not disclose or suggest that such ratio of movement is *dynamically modified*, nor does *Umeda* disclose or suggest that such ratio of movement is based on anything. Accordingly, the Office Action has not provided a basis in fact and/or technical reasoning to reasonably support the determination that the allegedly implied characteristic necessarily flows from *Umeda*.

Noting the deficiencies of *Umeda* the Office Action appears to imply that the teachings of well known mouse input devices are available to *Umeda*, which includes performing functions assigned to menu displays or smart buttons, which are associated with specific regions of a

display, and map to specific tasks and functions. In response to such arguments, Applicant respectfully notes that even if *Umeda* does have available well known mouse functions as stated, these stated functions are still insufficient to support a conclusion that *mapping* of *angular displacement* of the remote control device *into movement of a cursor is dynamically modified* based on (i) a particular task a user is performing, or (ii) a particular region of the display screen to which user input is directed necessarily flows from *Umeda*. Nevertheless, if the Office Action is taking "official notice" that such features are well known in the art, Applicant respectfully traverses such "official notice" and respectfully requests a prior art reference that discloses mapping of angular displacement of the remote control device into movement of a cursor is dynamically modified based on (i) a particular task a user is performing, or (ii) a particular region of the display screen to which user input is directed so that Applicant has a full and fair opportunity to respond to any such combination.

Recognizing some of the deficiencies of *Umeda*, the Office Action cites *Kaplan*. *Kaplan* discloses a graphical control button for a graphical scale to enable users to convey scalar information by controlling the region of the control button on which the cursor is positioned. Abstract; Fig. 4. Once the button is displayed, the computer system waits for a user key press, at which time the *current position* of the cursor is found through conventional means. Col. 3, ll. 37-46; Fig. 2. When the cursor is on the button, the *cursor location* must be *mapped* to a *control value* for the button. Col. 3, ll. 1-14 & 49-51. The function of the buttons can then change as a result of the control value (e.g., only showing a portion of the next pages displayed) Col. 4, ll. 45-60). Accordingly, *Kaplan* at most discloses the *mapping* of a *stationary cursor position* to a *modified action*. *Kaplan*, however, does not disclose or suggest *mapping* of *displacement* of a control device *into movement of a cursor* or that such mapping is dynamically modified. As such, *Kaplan* cannot rectify those deficiencies noted above with regard to *Umeda*. Because the combination of *Umeda* and *Kaplan* does not explicitly or inherently disclose or suggest all of the elements of Applicant's claim 1, Applicant respectfully submits that the combination does not render claim 1 unpatentable.

Claim 56 recites features that are similar to those of claim 1; however, instead of dynamically modifying the mapping of angular displacement of the remote control device into movement of a cursor, the mapping functions or rules are dynamically selected and applied to the received angular displacement data when translating the received angular displacement data into

cursor positioning data based on (i) a particular task a user is performing, or (ii) a particular region of the display screen to which user input is directed. As previously noted, *Umeda* does not explicitly or implicitly disclose or suggest dynamically modifying a mapping function, and *Kaplan* at most discloses the mapping of a stationary cursor position to a modified action. Accordingly, the combination of *Umeda* and *Kaplan* cannot possibly disclose or suggest mapping functions or rules that are dynamically selected and applied to the received angular displacement data when translating the received angular displacement data into cursor positioning data. Therefore, the combination of *Umeda* and *Kaplan* do not render claim 56 unpatentable.

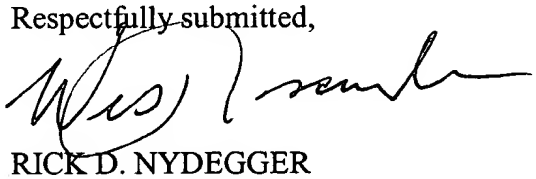
Independent claims 22 and 48 have been amended to disclose a remote control device and system that comprise, *inter alia*, mapping means for translating movement data for the remote control device (e.g., angular displacement) into cursor movement data based on either (i) a particular task a user is performing, or (ii) a particular region of the display screen to which user input is directed. As previously mentioned, *Umeda* does not disclose or suggest a basis for changing the ratio of actual inclination quantities into a movement quantity of the cursor. Further, *Kaplan* at most discloses the mapping of a stationary cursor position to a modified action, not the mapping or translation of movement data for a control device into cursor movement date. Accordingly, the combination does not disclose or suggest mapping means for translating movement data for the remote control device (e.g., angular displacement) into cursor movement data based on either (i) a particular task a user is performing, or (ii) a particular region of the display screen to which user input is directed. Because the combination of *Umeda* and *Kaplan* does not disclose or suggest, either explicitly or inherently, each and every feature of claims 22 and 48, the combination does not render these claims unpatentable.

Based on at least the foregoing reasons, therefore, Applicant respectfully submits that the cited art fails to anticipate or make obvious Applicant's invention, as claimed, for example, in independent claims 1, 22, 48, and 56. Applicant notes for the record that the other rejections and assertions of record with respect to the independent and dependent claims are now moot, and therefore need not be addressed individually. Accordingly, Applicant does not acquiesce to any assertions in the Office Action that are not specifically addressed above, and hereby reserve the right to challenge any such assertions in the future if necessary or desired.

All of the objections and rejections raised in the Office Action having been addressed, it is respectfully submitted that the present application is in condition for allowance and notice to that effect is earnestly solicited. Should the Examiner have any questions regarding this response or the application in general, the Examiner is urged to contact the undersigned at (801) 533-9800.

Dated this 17th day of May, 2005.

Respectfully submitted,



RICK D. NYDEGGER
Registration No. 28,065
WESLEY C. ROSANDER
Registration No. 51,030
Attorneys for Applicant
Customer No. 47973

WCR:lam
LAM0000002093V001
W:\14531\25\LAM0000002093V001.DOC